



NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
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<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other	
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**Work Order ID 107379**

September-23-13 11:49:37 AM

**\*107379\***

Page 2

Item ID: D4022-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Fuel Transfer Pump Assy

Start Date: 9/23/13

Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 9/23/13

Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00

**\*120\***

Packaging

Memo

SJS/c

0.00

Packaging

3 13/10/29  
DAS  
32  
9-89

130

QC21- Final Inspection - Work Order Release

0.00

**\*130\***

QC

Memo

0.00

Quality Control

Rm 13/10/29  
MF  
13-10-29

NCR: Yes / No

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Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

# Picklist Print

September-23-13 11:49:36 AM

Page 1 / 1

Work Order ID: 107379

Parent Item: D4022-041

Parent Item Name: Fuel Transfer Pump Assy

Start Date: 9/23/13

Required Date: 9/23/13

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP rev A 10.02.02 new issue Prelim EC verified by:DD IPP Rev:B 10.05.17 as per ECN10-562 DD verf:EC IPP REV:C 11.11.22 PER ECN11-665 DD VERF:EC IPP REV:D 12.02.08 replace AN818-6D for AN815-6D DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4022-1 Fuel Transfer Pump		Manufactured	No	106519		100	Each	5.0000	1	2	3	FF	13-10-25
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				GA		5							
				106519		5							
D4022-5 Thermal Switch		Manufactured	No			100	Each	9.0000	1	2		FF	13-10-25
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST242A		9							
				106517		9							
AN815-6D Union-M-Flare		Purchased	No			100	Each	26.0000	2	4		FF	13-10-25
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST347	127044	25				1			
				m126176		25				5			
				ST348		1							
				124097		1							
MS29512-06 O-RING		Purchased	No			100	Each	38.0000	2	4		FF	13-10-25
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST309	127044	38				6			
				123968		4							
				125445		14							
				m126475		20							

NCR: Yes / No

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QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

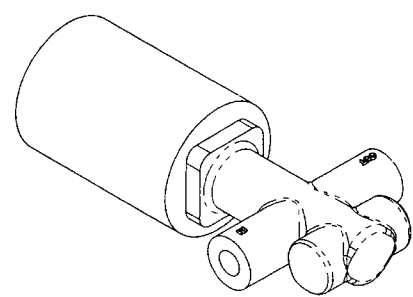
<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other



107379

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4022-1	REF JCA/M47/D3/SHT 13

**SPECIFICATION CONTROL DRAWING**



DART PART NUMBER	SUPPLIER	SUPPLIER PART NUMBER	OPERATING VOLTAGE	FLOW (GPH)	OUTPUT PRESSURE (PSI)	TEMPERATURE RANGE
D4022-1	WELDON	A8150-B1	24 VDC	35 - 50	5 - 25	-65°F TO +185°F
	AEROSPARES ACCESSORIES	A8150-B1	24 VDC	35 - 50	5 - 25	-65°F TO +185°F

**D4022-X FUEL TRANSFER PUMP**

RELEASED  
2012-03-02  
JMP

- NOTES:
- 1) MATERIAL: N/A
  - 2) FINISH: N/A
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 2.6 lbs

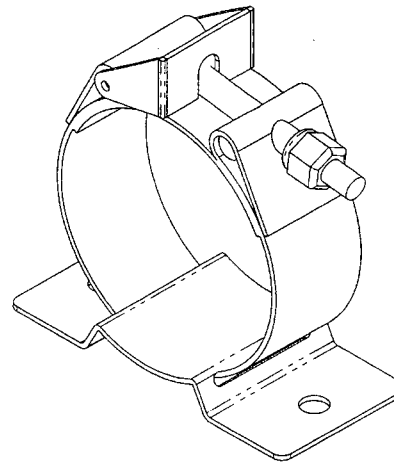
DESIGN	JS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	BC		
CHECKED	JS	DRAWING NO. <b>D4022</b>	REV. C SHEET 2 OF 4
MFG. APPR.		TITLE <b>FUEL PUMP</b>	SCALE NTS
APPROVED	149	DATE <b>12.02.09</b>	
DE APPR.	149		
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107379

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4022-3	REF JCA/M47/D3/SHT 13

## SPECIFICATION CONTROL DRAWING



DART PART NUMBER	POSSIBLE SUPPLIER	SUPPLIER PART NUMBER	MATERIAL	FITS MOTOR SIZE ( $\phi$ )
D4022-3	WELDON	TC 250-100	STAINLESS STEEL	2.5
	AIRCRAFT SPRUCE AND SPECIALTY	05-00021	STAINLESS STEEL	2.5
	AEROSPARES ACCESSORIES	TC 250-100	STAINLESS STEEL	2.5



### D4022-X FUEL PUMP MOUNTING BRACKET

2012-03-22  
JMP

NOTES:  
1) MATERIAL: N/A  
2) FINISH: N/A  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: N/A

DESIGN	JS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JS		
CHECKED	JS	DRAWING NO. <b>D4022</b>	REV. C
MFG. APPR.		SHEET 3 OF 4	
APPROVED	JS	TITLE	SCALE
DE APPR.	JS	<b>FUEL PUMP</b>	NTS
DATE	12.02.09	COPYRIGHT © 2010 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

107379

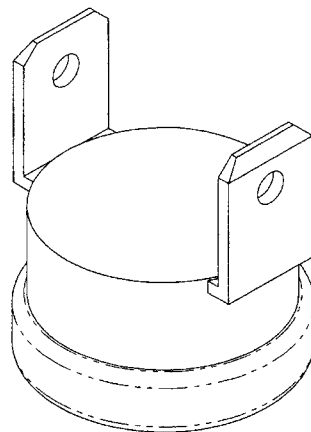
DART AEROSPACE  
PART NUMBER

D4022-5

JOHN CAMERON AVIATION  
PART NUMBER

REF JCA/M47/D3/SHT 13

## SPECIFICATION CONTROL DRAWING



DART PART NUMBER	POSSIBLE SUPPLIER	SUPPLIER PART NUMBER	ALTERNATE PART NUMBER	TEMPERATURE WHEN SWITCH OPENS
D4022-5	FARNELL	1006847	3775628	125°F
	HONEST-WELL	T23A125BSR2-15	3775628	125°F
	NEWARK	98K1992	3775628	125°F

### D4022-X THERMAL SWITCH

RECEIVED  
11 2012-03-02  
JMP

#### NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) FINISH: N/A

DESIGN	JS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JS		
CHECKED	JS	DRAWING NO. <b>D4022</b>	REV. C SHEET 4 OF 4
MFG. APPR.		TITLE <b>FUEL PUMP</b>	SCALE NTS
APPROVED	JMP	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DE APPR.	A		
DATE	12.02.09		